

Claims

1. An Internet information displaying apparatus, comprising:

- video signal inputting means for inputting a video signal;
- picture signal outputting means for extracting a first picture signal from the video signal inputted to said video signal inputting means, and outputting it;
- sound signal outputting means for extracting a sound signal from the video signal inputted to said video signal inputting means, and outputting it;
- a speaker for outputting the sound signal outputted from said sound signal outputting means as audio sound;
- digital data transmitting and receiving means for transmitting and receiving digital data from a communication line;
- Internet connecting means for transmitting the digital data to said digital data transmitting and receiving means, and receiving the digital data from said digital data transmitting and receiving means;
- data converting means for converting the digital data received by said Internet connecting means as a second picture signal, and outputting it;
- displaying means for displaying the first picture signal

outputted from said picture signal outputting means and/or the second picture signal outputted from said data converting means on the screen;

character signal generating means for generating a character signal and displaying it on the screen of said displaying means, and

character signal generation controlling means for detecting the state of transmission and reception of digital data of said digital data transmitting and receiving means, and controlling said character signal generating means so as to generate a character signal to indicate the transmission or reception state.

2. The Internet information displaying apparatus as set forth in claim 1, wherein displaying of transmission or reception state by said character signal generation controlling means is executed when said displaying means displays the first picture signal.

3. The Internet information displaying apparatus as set forth in claim 2, wherein displaying of transmission or reception state by said character signal generation controlling means is executed, then the second picture signal outputted from said data converting means is automatically displayed on the displaying means.

4. The Internet information displaying apparatus as set forth in claim 1, wherein said character generation controlling means generates at least a bar increasing depending on the quantity of transmitted or received data, the characters showing connection time of said communication line, and characters showing the communication state, and displays them in part of the screen of said displaying means.

5. The Internet information displaying apparatus as set forth in claim 4, wherein the bar generated by said character generation controlling means differ in the color depending on the data type.

6. The Internet information displaying apparatus as set forth in claim 5, wherein the characters showing connection time of said communication line, and the characters showing the state of communication are displayed as being superposed on the bar generated by said character generation controlling means.

7. The Internet information displaying apparatus as set forth in claim 4, wherein the bar generated by said character generation controlling means differ in the color depending on the state of communication.

8. The Internet information displaying apparatus as set forth in claim 7, wherein the characters showing connection time of said communication line, and the characters showing the state of communication are displayed as being superposed on the bar generated by said character generation controlling means.

9. The Internet information displaying apparatus as set forth in claim 8, wherein said characters showing the connection time of said communication line and said characters showing the state of communication are displayed alternately at a predetermined time interval.

10. An Internet information displaying apparatus, comprising:

video signal inputting means for inputting a video signal;

picture signal outputting means for extracting a first picture signal from the video signal inputted to said video signal inputting means, and outputting it;

digital data transmitting and receiving means for transmitting and receiving digital data from a communication line;

Internet connecting means for transmitting the digital data to said digital data transmitting and receiving means,

and receiving the digital data from said digital data transmitting and receiving means;

data converting means for converting the digital data received by said Internet connecting means as a second picture signal, and outputting it;

displaying means for displaying the first picture signal outputted from said picture signal outputting means and/or the second picture signal outputted from said data converting means on the screen,

first clocking means for clocking the time from connection of said Internet connecting means with said communication line; and

clocking result information generating means for displaying the information relating to the clocking result by said first clocking means on the screen of said displaying means.

11. The Internet information displaying apparatus as set forth in claim 10, wherein the connection of said communication line and said Internet connecting means is cut off when operation relating to the Internet is not done until said first clocking means clocks a predetermined time.

12. The Internet information displaying apparatus as set forth in claim 11, further comprising:

second clocking means for starting clocking every time operation relating to the Internet is done;

wherein the connection of said communication line and said Internet connecting means is cut off when operation relating to the Internet is not done until said second clocking means clocks a predetermined time.

13. The Internet information displaying apparatus as set forth in claim 11, wherein notice of disconnection of said communication line is displayed on the screen of said displaying means for a predetermined time before cutting off the connection of said Internet connecting means and said communication line.

14. The Internet information displaying apparatus as set forth in claim 10, further comprising:

second clocking means for starting clocking every time operation relating to the Internet is done;

wherein the connection of said communication line and said Internet connecting means is cut off when operation relating to the Internet is not done until said second clocking means clocks a predetermined time.

15. The Internet information displaying apparatus as set forth in claim 14, wherein notice of disconnection of

said communication line is displayed on the screen of said displaying means for a predetermined time before cutting off the connection of said Internet connecting means and said communication line.

16. The Internet information displaying apparatus as set forth in claim 10, further comprising:

composing means for compressing the first picture signal and second picture signal in the horizontal direction of the screen of said displaying means in synchronism with the synchronizing signal in said video signal, composing laterally, and displaying on the screen of said displaying means; and

detecting means for detecting presence or absence of said synchronizing signal while said composing means is composing laterally and displaying on the screen said first picture signal and second picture signal;

wherein said displaying means displays said second picture signal on the entire screen of said displaying means while said detecting means is not detecting said synchronizing signal.

17. The Internet information displaying apparatus as set forth in claim 16, wherein it is displayed on said screen that said video signal is not received when said displaying

means displays said second picture signal on the entire screen.

18. An Internet information displaying apparatus, comprising:

video signal inputting means for inputting a video signal;

picture signal outputting means for extracting a first picture signal from the video signal inputted to said video signal inputting means, and outputting it;

digital data transmitting and receiving means for transmitting and receiving digital data from a communication line;

Internet connecting means for transmitting the digital data to said digital data transmitting and receiving means, and receiving the digital data from said digital data transmitting and receiving means;

data converting means for converting the digital data received by said Internet connecting means as a second picture signal, and outputting it;

displaying means for displaying the first picture signal outputted from said picture signal outputting means and/or the second picture signal outputted from said data converting means on the screen;

screen displaying means for displaying a tool bar

composed of plural buttons each representing control functions, on the screen of said displaying means;

wherein said screen displaying means has means for magnifying and displaying a selected button when an arbitrary button in said tool bar is selected.

19. The Internet information displaying apparatus as set forth in claim 18, wherein the displaying state of the selected button is magnified in the direction toward the center of the screen.

20. The Internet information displaying apparatus as set forth in claim 18, wherein characters for expressing the function of the button are also displayed when magnifying and displaying the selected button.

21. The Internet information displaying apparatus as set forth in claim 18, wherein said screen displaying means further has means for varying the displaying state of said button when it is designated to execute the function of the selected, magnified and displayed button.

22. The Internet information displaying apparatus as set forth in claim 21, wherein the displaying state of the selected button when executing the function is displayed in a

depressed state from the screen.

*suect* 23. An Internet information displaying method for receiving Internet information, displaying it on the screen, and displaying a tool bar composed of plural buttons each representing control function on the screen, comprising steps of:

selecting an arbitrary button in said tool bar; and magnifying and displaying said selected button.

24. The Internet information displaying method as set forth in claim 23, wherein the displaying state of the selected button is magnified in the direction toward the center of the screen at said step of magnifying and displaying said selected button.

25. The Internet information displaying method as set forth in claim 23, wherein characters for expressing the function of the button are also displayed at said step of magnifying and displaying said selected button.

26. The Internet information displaying method as set forth in claim 23, further comprising step of varying the displaying state of said magnified and displayed button when executing the function of said selected button.

27. The Internet information displaying method as set forth in claim 26, wherein said selected button is displayed in a depressed state from the screen at the step of varying the displaying state of said magnified and displayed button when executing the function of said selected button.

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B<sub>1</sub>  
A<sub>2</sub>  
B<sub>1</sub>